



8165 E Kaiser Blvd. Anaheim, CA 92808  
 p. 714.282.2270  
 f. 714.676.5558

Report No: L061606108

Date: 7/19/2016



NVLAP LAB CODE 200927-0

**Report No:** L061606108

**Report Prepared For:** Beachside Lighting  
 905 Kalaniana'ole Hwy # 29A Kailua, HI. 96734

**Model Number:** E3-R-3W-SP

**Test:** Electrical and Photometric tests

**Standards Used:** Appropriate part or all test guidelines were used for test performed:  
*IESNA LM79: 2008* Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products  
*ANSI NEMA ANSLG C78.377: 2008* Specification of the Chromaticity of Solid State Lighting Products  
*ANSI C82.77:2002:* Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

**Description of Sample:** Client submitted the sample. Catalog number is E3-R-3W-SP . Received in working and undamaged condition. No modifications were necessary.

**Testing Condition:** Fixture is tested with no special conditions.

**Sample Arrival Date:** 6/25/16

**Date of Tests:** 7/14/16 - 7/18/16

**Seasoning of Sample:** No seasoning was performed in accordance with IESNA LM-79.

**Equipment List**

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	11/18/16
Xitron Power Analyzer	2503AH	MT-EL01	11/30/16
ITECH DC Power Supply	IT6122	PSDC-03-S1	11/17/16
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/24/16
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

\*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

**Test Summary**

<b>Manufacturer:</b>	Beachside Lighting
<b>Model Number:</b>	E3-R-3W-SP
<b>Driver Model Number:</b>	N/A
<b>Total Lumens:</b>	206.40
<b>Input Voltage (VAC/60Hz):</b>	12.00
<b>Input Current (Amp):</b>	0.33
<b>Input Power (W):</b>	2.89
<b>Input Power Factor:</b>	0.73
<b>Current ATHD @ 12V(%):</b>	81%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Efficacy:</b>	71
<b>Color Rendering Index (CRI):</b>	83
<b>Correlated Color Temperature (K):</b>	2983
<b>Chromaticity Coordinate x:</b>	0.4391
<b>Chromaticity Coordinate y:</b>	0.4064
<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:30
<b>Total Operating Time (Hours):</b>	1:15
<b>Off State Power(W):</b>	0.00

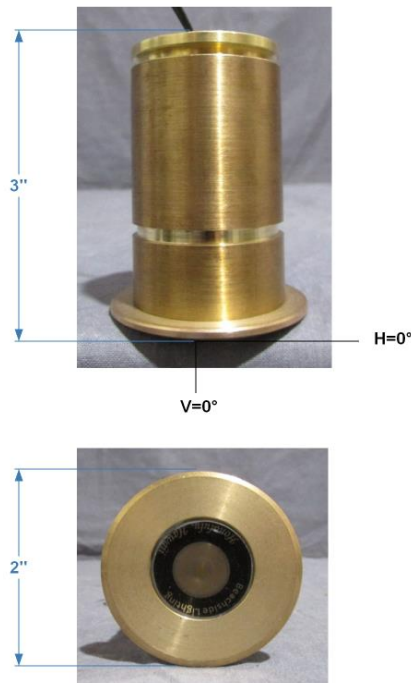
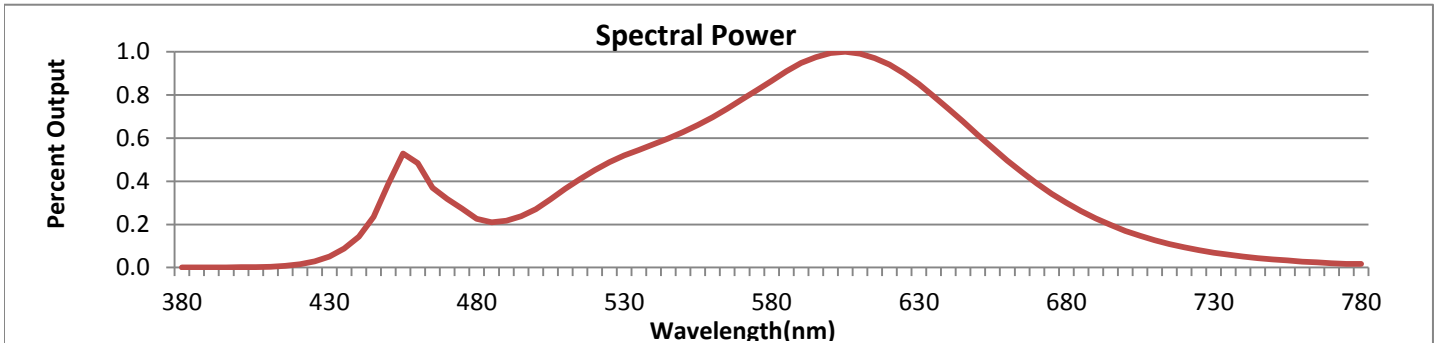


FIG. 1 LUMINAIRE

\*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.



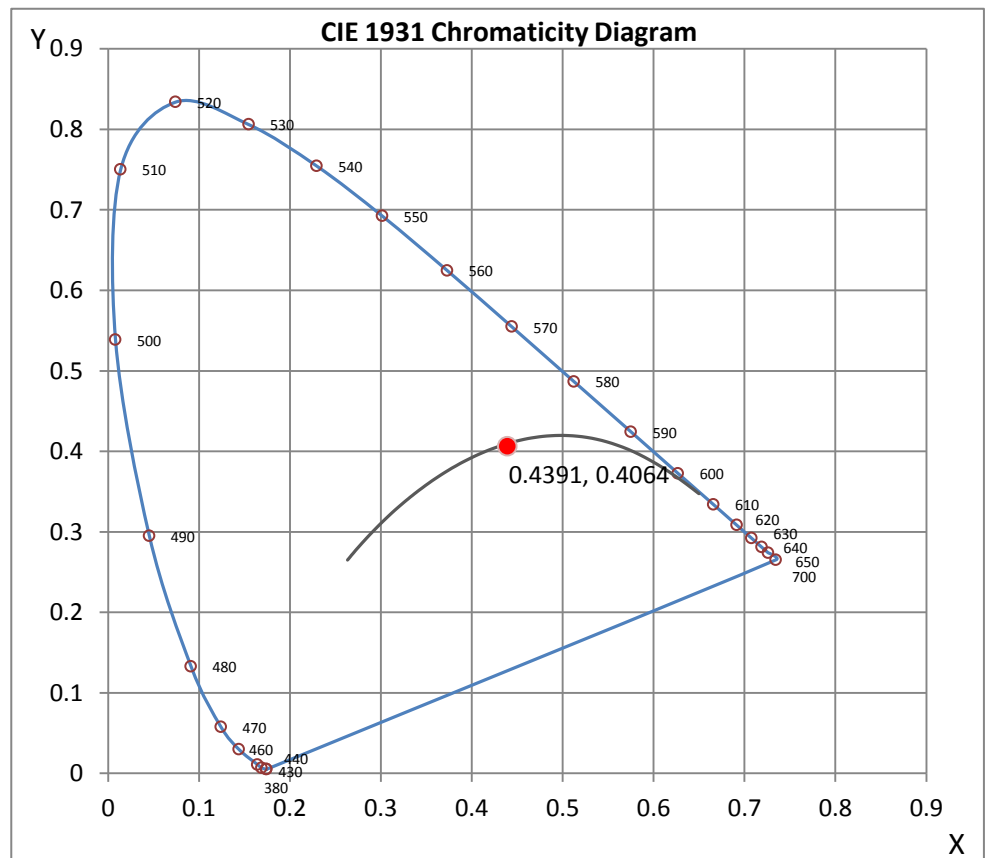
Wavelength	W/m <sup>2</sup> nm	440	0.1425	510	0.3656	580	0.8661	650	0.6141	720	0.0935
380	0.0009	450	0.3879	520	0.4513	590	0.9480	660	0.4967	730	0.0687
390	0.0007	460	0.4846	530	0.5196	600	0.9947	670	0.3887	740	0.0507
400	0.0014	470	0.3187	540	0.5723	610	0.9912	680	0.3006	750	0.0374
410	0.0036	480	0.2257	550	0.6287	620	0.9408	690	0.2280	760	0.0275
420	0.0149	490	0.2172	560	0.6967	630	0.8506	700	0.1699	770	0.0204
430	0.0516	500	0.2710	570	0.7801	640	0.7358	710	0.1269	780	0.0173

**CRI & CCT**

x	0.4391
y	0.4064
u'	0.2510
v'	0.5226
CRI	82.80
CCT	2983
Duv	0.00063

**R Values**

R1	81.44
R2	91.35
R3	96.83
R4	79.47
R5	80.51
R6	88.61
R7	83.46
R8	60.63
R9	11.53
R10	78.83
R11	77.35
R12	66.74
R13	83.86
R14	98.75



\*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

## Test Methods

### Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

### Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

### Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

Report Prepared by : Keyur Patel

Test Report Released by:



Jeff Ahn  
Engineering Manager

Test Report Reviewed by:



Steve Kang  
Quality Assurance

*\*Attached are photometric data reports. Total number of pages: 9*



8165 E. Kaiser Blvd. Anaheim, CA 92808  
p. 714.282.2270  
f. 714.676.5558

# Photometric Test Report

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : L061606108.IES**

## DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L061606108  
[TESTLAB] LIGHT LABORATORY, INC.  
[ISSUEDATE] 7/19/2016  
[MANUFAC] BEACHSIDE LIGHTING  
[LUMCAT] E3-R-3W-SP  
[LUMINAIRE] RECESSED UPLIGHT  
[BALLASTCAT] N/A  
[LAMPPOSITION] 0,0  
[LAMPCAT] N/A  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[INPUT] 12VAC, 2.89W  
[TEST PROCEDURE] IESNA:LM-79-08

Note: Candela values converted from Type-C to Type-B

## CHARACTERISTICS

NEMA Type	2 H x 2 V
Maximum Candela	3088
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	12.8
Vertical Beam Angle (50%)	12.8
Horizontal Field Angle (10%)	23.2
Vertical Field Angle (10%)	23.2
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Beam Lumens	100
Beam Efficiency	N.A.
Field Lumens	153
Field Efficiency	N.A.
Spill Lumens	54
Luminaire Lumens	206
Total Efficiency	N.A.
Total Luminaire Watts	2.89
Ballast Factor	1.00

**IES FLOOD REPORT**  
**PHOTOMETRIC FILENAME : L061606108.IES**

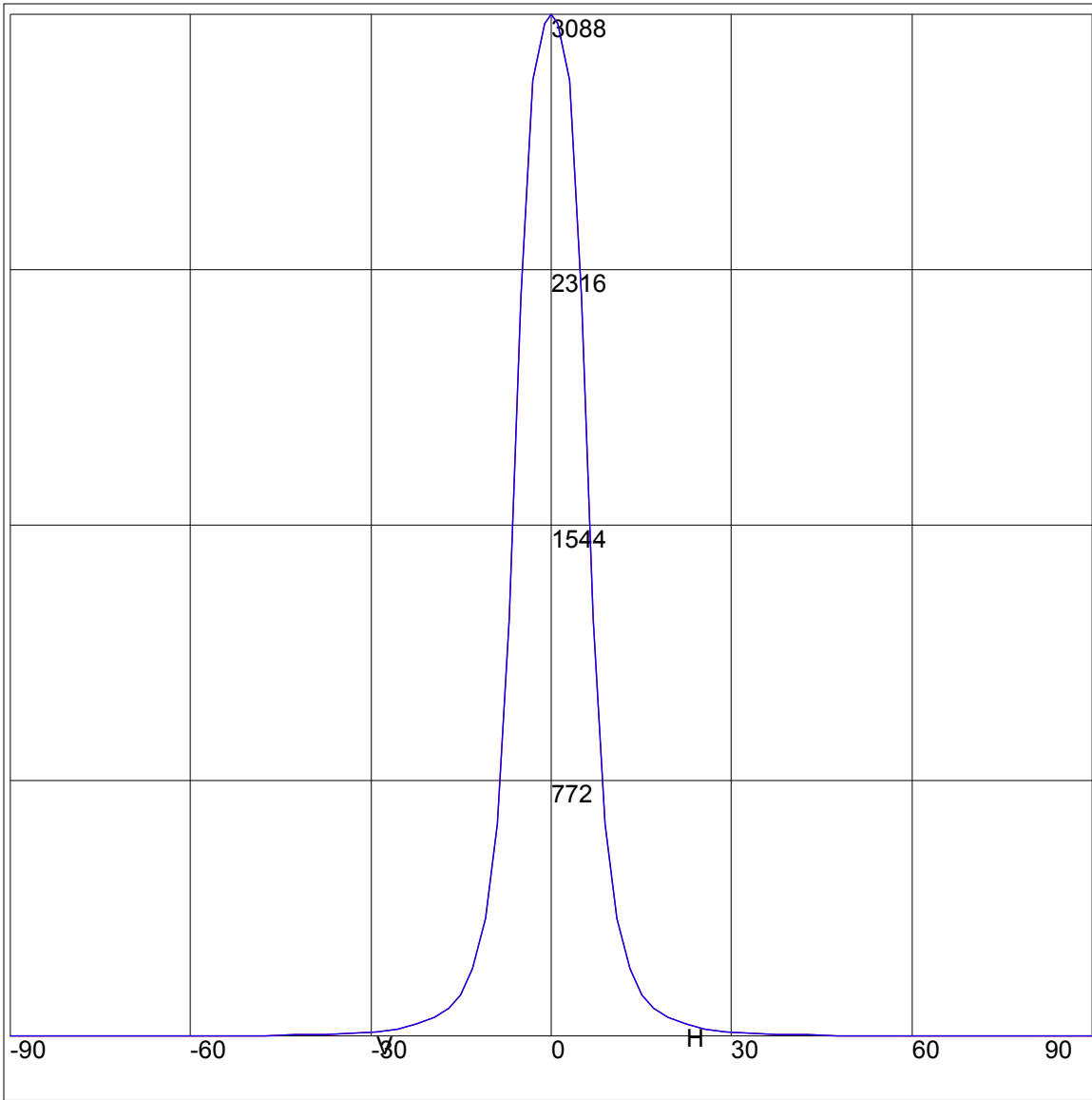
**AXIAL CANDELA**

DEG.	HOR.	DEG.	VERT.
90	0	90	0
85	0	85	0
75	0	75	0
65	0	65	0
55	2	55	2
47.5	3	47.5	3
42.5	4	42.5	4
37.5	7	37.5	7
33	10	33	10
29	15	29	15
25.5	22	25.5	22
22.5	36	22.5	36
19.5	56	19.5	56
17	85	17	85
15	127	15	127
13	203	13	203
11	354	11	354
9	644	9	644
7	1263	7	1263
5	2236	5	2236
3	2889	3	2889
1	3059	1	3059
0	3088	0	3088
-1	3059	-1	3059
-3	2889	-3	2889
-5	2236	-5	2236
-7	1263	-7	1263
-9	644	-9	644
-11	354	-11	354
-13	203	-13	203
-15	127	-15	127
-17	85	-17	85
-19.5	56	-19.5	56
-22.5	36	-22.5	36
-25.5	22	-25.5	22
-29	15	-29	15
-33	10	-33	10
-37.5	7	-37.5	7
-42.5	4	-42.5	4
-47.5	3	-47.5	3
-55	2	-55	2
-65	0	-65	0
-75	0	-75	0
-85	0	-85	0
-90	0	-90	0

**ZONAL LUMEN SUMMARY**

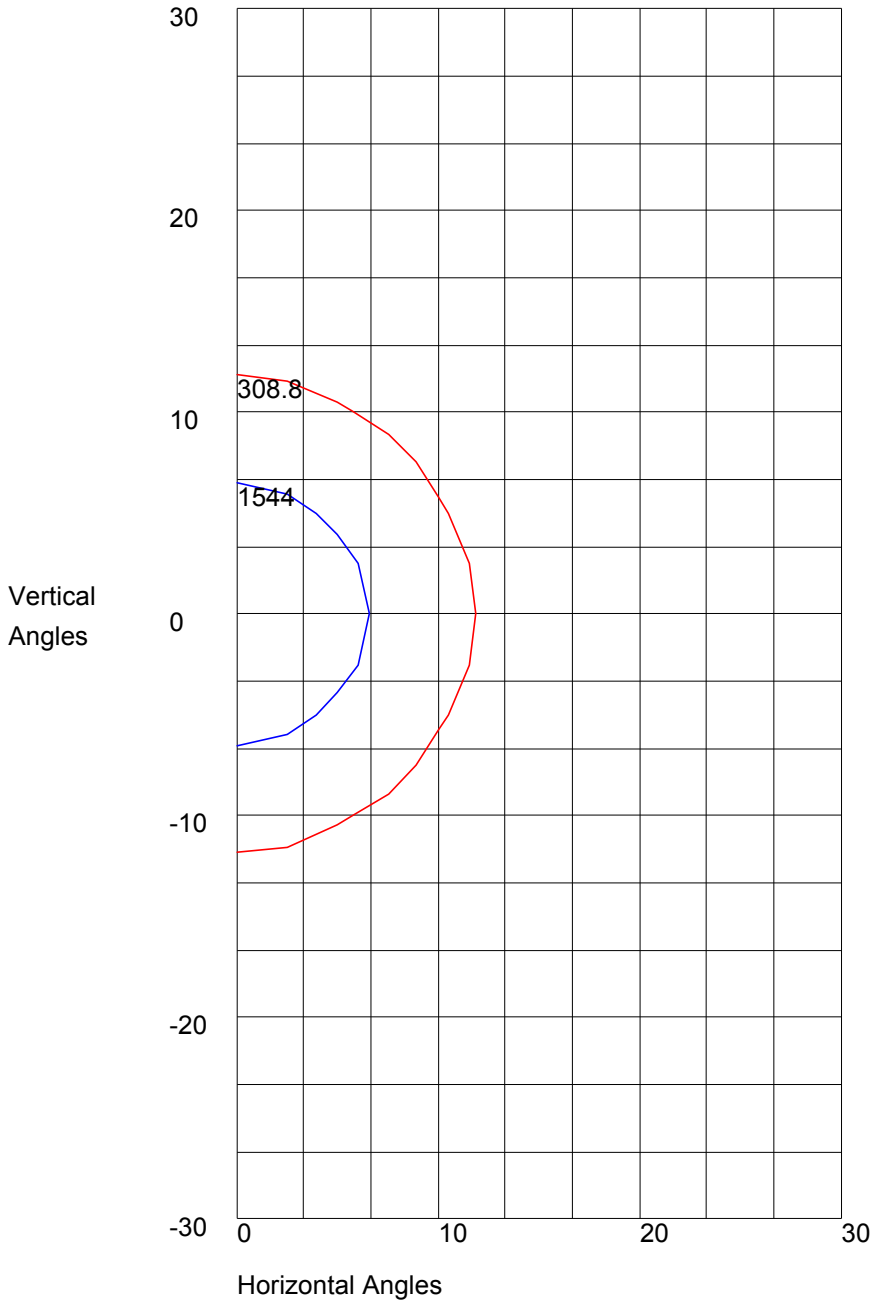
Zone	%
0-20	89.5
0-30	95.4
0-40	97.9
0-60	99.9
0-80	100
0-90	100
10-90	30.7
20-40	8.4
20-50	9.6
40-70	2.1
60-80	0.1
70-80	0
80-90	0
90-110	0
90-120	0
90-130	0
90-150	0
90-180	0
110-180	0
0-180	100

AXIAL CANDELA DISPLAY



Maximum Candela = 3088 Located At Horizontal Angle = 0, Vertical Angle = 0  
H - Horizontal Axial Candela  
V - Vertical Axial Candela

ISOCANDELA CURVES



Maximum Candela = 3088 Located At Horizontal Angle = 0, Vertical Angle = 0  
50% Maximum Candela = 1544  
10% Maximum Candela = 308.8



## Illuminance cone diagram

Mounting Height = 12 ft.

